

From qrp-1@lehigh.edu Fri Dec 15 21:10:07 1995  
From: rflight@VNET.IBM.COM  
Subject: [1399] ALC your way to QRP  
Message-ID: <199512151207.HAA55622@nss2.CC.Lehigh.EDU>

Hi Gang;

Likely not new news to some, but for the benefit of those with QRO rigs I offer the following:

I experimented with my IC-735 last night and investigated using the ALC input to control the output power below the minimum adjustable range of 10 watts per the specifications.

The spec limit for the ALC range is from 0 to -4 VDC. I wired a 10 k pot across a 9 Volt battery and adjusted the wiper to provide zero volts output with respect to the positive terminal of the battery. I then connected this to my ALC input via a twisted pair of hookup wire to an RCA phono plug (that is the connector used by the ICOM rig). I then adjusted the transmitter for minimum power output (7 watts on my rig), locked up the key, and adjusted the pot for an output of one watt.

I noted three things worthy of mention to anybody wishing to attempt this:

- 1) The transmitter output goes to near zero at the maximum limit of the ALC (-4 volts for me), and maximum output is represented as zero volts (i.e. the panel knobs on the rig take over here.

- 2) Only a small ALC voltage was required to reduce the output to 1 watt. My rig required only 1.6 volts of the 4 volt range to reduce the output to this limit. The message here is that you don't need the full ALC range to reduce the power to QRP or even QRPP levels, and when performing the task, it is best to start with zero volts on the ALC so you don't think something went wrong. Use as high resistance pot across the battery as you have... The dissipation by the pot defines the battery drain, and you don't want to be changing batteries all the time. The ALC input presents a very high impedance load, and will not drain a 9 volt battery easily on its own.

- 3) The ALC works like a slow AGC, i.e. rapid attack, and long delay. This should be a non issue, but is mentioned so that as one observes this behaviour they won't get alarmed. If you apply an ALC bias, the power drops immediately. Remove the bias, and power returns slowly.

Of course the motivation for this effort was to get to QRP levels quickly in support of our new 80 meter Sunday night net. Had to check in at the 7 watt level last week.

And finally; I had to verify I could tolerate using a muffled megaphone, so I parked and hollered (er.. whispered) CQ CQ for half an hour or so. Much to my delight, the lovely and talented N1QLF (Margie) in Ct who gave me a generous 579, chatted with me for half an hour or so, and sent me off to slumberland with a happy holiday wishes and an always welcome 88.

Looking forward to hearing the gang Sunday night. I won't be yelling so loud this time :-)

73 de N3GO / Gary - Raleigh, NC

From qrp-1@lehigh.edu Fri Dec 15 21:10:07 1995  
From: ljones@why.net (ljones)  
Subject: [1393] Condenser???  
Message-ID: <19951215031827110.AAA78@dal46.why.net>

Greetings Ron...

If you are worried about telling someone you age, you gave yourself away by calling the capacitor a condenser. I don't think that it has been called a condenser since Noah built the Ark...(chuckle, chuckle)  
72/73

dee-it dee-it (Texas Accent)

Larry n5osg

Larry Jones N5OSG                      NorTex      QRP-ARCI      G-QRP      NorCal      MI-QRP      NE-QRP  
4028 Random Circle  
Garland Tx 75043-3250

From qrp-1@lehigh.edu Fri Dec 15 21:10:07 1995  
From: dsa@apollo.hp.com  
Subject: [1419] CW "Accents"....  
Message-ID: <199512151726.MAA104044@nss2.CC.Lehigh.EDU>

>dee-it dee-it (Texas Accent)

>

>Larry n5osg

>

The other day, I heard a W6 sending with a really interesting accent. Sounded something like:

whooooooop whoop whooooooop whoop . . .  
whooooooop whooooooop whoop whooooooop . . .

Must've been a some kind of "Valley" accent ;-)

-Dale

From qrp-1@lehigh.edu Fri Dec 15 21:10:07 1995  
From: rossi@VFL.Paramax.COM (Pete Rossi)  
Subject: [1409] fox hunt  
Message-ID: <9512151430.AA15541@gvlf6-a>

I did not get a chance to listen until about 0230z Heard someone (I forget) working/calling WJ2V but no sign of him. Then I realized I had my 20 meter antenna on... Switched to the right antenna but still no sign of him.. Oh well.. another one got away in EPA.

---

Pete Rossi - WA3NNA  
rossi@vfl.paramax.com  
Loral Defense Systems-Eagan (formerly Unisys Government Systems Group)  
Valley Forge Engineering Center - Paoli, Pennsylvania

From qrp-1@lehigh.edu Fri Dec 15 21:10:07 1995  
From: "Doyle, Ron" <doyler@uh2297p01.daytonoh.attgis.com>  
Subject: [1402] FOX Hunt Thursday Night  
Message-ID: <30D17B73@sdwinb.daytonoh.attgis.com>

I started out full of hope since NY is a good path for me in propagation dead Ohio. I got a late start because my son's cub scout meeting went long and I had to herd the kids to bed when we did get home.

I got started listening about 01:30utc and heard lots of sigs including ssb and digital. Band seemed to be in fair shape. My hopes were rising. I listened to 7040 +- 2khz for about an hour with nothing. My hopes where

starting to fall pretty rapidly. Yet another fox hunt and no fox.:(

Then about 02:40 I started hearing the fox calling cq. He was weak and fading pretty badly. I listened for a few minutes and nobody answered so I gave it a shot. Preston came back to me but I thought I heard lots of ? and he started calling cq again.

I waited about 10 minutes and he seemed a little better but his frequency was drifting down a little I couldn't use the 100hz filter of my qrp+ for fear of losing him so I listened to the noise along with the weak sig. His signal was getting chirpy too. It started out ok but was going downhill a little there at the end. It was getting close to quitting time and the fox still wasn't very good but I was hearing most of his cq. I gave it another shot and he came back with my full call this time! Now, I am feeling real good. I hear his rst and it seemed pretty bad. I thought I caught 129 or 119 something in that area, fading was doing a real job on his sig. I sent back a 229 to him and I heard a roger and qsl. I had him and with 5 minutes to spare.

Then I just set in the living room in the quiet and savored the feeling of bagging the fox for a while before calling it a night.

My SS meter never moved during the whole time. It's a good feeling to hear a weak sig and know you have half a chance of him hearing you.

Thanks Preston, I hope we had a good enough qso for it to count.

73 to all

Ron Doyle, N8VAR qrp-1# 263  
AT&T GIS - Dayton  
Work (513) 445-3179  
Home (513) 237-0790  
<Ronald.Doyle@DaytonOH.ATTGIS.COM>

-----  
Practice Random Kindness and Senseless Acts of Beauty

From qrp-1@lehigh.edu Fri Dec 15 21:10:07 1995  
From: H Smith <hbs@crl.com>  
Subject: [1408] FOX SCHEDULE CHANGE FOR 12/19/95  
Message-ID: <Pine.SUN.3.91.951215061422.12771B-100000@crl12.crl.com>

2nd Notice

\*\*\*\* NOTICE OF FOX SCHEDULE CHANGE FOR TUESDAY 12/19/95 \*\*\*\*

Schedule is changed as follows:

Tuesday    December 19,1995    ---    NA5K    Smitty

9:00 - 9:30 PM CST  
3:00 - 3:30 AM UTC        7.040 +/-

9:30 - 10:00 PM CST  
3:30 - 4:00 AM UTC        7.110 +/-

10:00 - 11:00 PM CST  
4:00 - 5:00 AM UTC        7.040 +/-

These times are one hour later than previously scheduled.

CU on Tuesday,

Smitty, NA5K

Henry Smith (hbs@crl.com)

From qrp-1@lehigh.edu   Fri Dec 15 21:10:07 1995  
From: PDouglas12@aol.com  
Subject: [1436] Fox's Report  
Message-ID: <951215194619\_73887061@mail02.mail.aol.com>

Well guys, there were no calls in the first half hour. I heard no and worked no novice/techs. I was thinking I would be the first fox to make no contacts at all. Big mouth, no skill, that's what they'll say. It was a very thin night but I worked five:

AK5B 449 (only decent signal not deep deep in the mud)  
KE2WB 229  
AE4IC Bob in Greensboro NC with a big 229 and good ears.  
WJ4P 339

N8VAR 229 the first time (yes, you were in the log the first time) and 119 the second.

There were signals coming in, though. A number of stations were in QSO all around 7040, and I had to change freqs once or twice by a kc or two to stay out from under.

Now, someone on the net noted another op who was calling CQ Fox. I am glad someone else heard him too. At first, I wondered whether I was just having a little auditory hallucination--or maybe I was hearing one of those fabled LDEs (long delayed echo) of my own signal. But no, it was just some poor misguided soul who wanted to be in the fox hunt and didn't know how. For those who want to play but haven't been around or (for goodness sakes) haven't been paying attention, only the Fox calls CQ. He can't call you.

It was a grind listening into the noise level for the few I gleaned. I enjoyed every minute of the 120. If I didn't hear you, it wasn't for want of trying. CU all next week in the hunt.

72, Preston WJ2V

PS I know, I know, MANHATTAN is the correct spelling

From qrp-1@lehigh.edu Fri Dec 15 21:10:07 1995  
From: Dave Fifield <fifield@lan.nsc.com>  
Subject: [1424] Getting the SWR down?  
Message-ID: <30D1E2A9.1CC2@lan.nsc.com>

Last weekend, I put up a new antenna, a 40m dipole fed with 450 Ohm ladder line so that I could tune it to other bands too. The centre is at 35 feet and the ends are at about 15 feet: everything is well clear of all metal and other objects. It went up on Saturday, just before the storms in the bay area...and it's still up!

I built a version of the W1FW resonant tuner described in several of the ARRL publications (QRP Classics, Antenna notebook etc.), and it seems to have tuning abilities on all the bands I have inductorized it for, but....

I can only get a 1:1 vswr on 80m. On 40m, the best I can get is about 2:1, and on all the higher bands, I'm lucky if I can get it down to 3 or 4:1!!! The books suggest that you ought to be able to get perfect 1:1 vswr on all bands.

Can anyone suggest a remedy? A different antenna tuner type perhaps? Anyone seen a problem like this before. All help would be greatly appreciated.

From qrp-1@lehigh.edu Fri Dec 15 21:10:07 1995  
From: RobCap@aol.com

Subject: [1411] HW-9 Scouting Report  
Message-ID: <951215100100\_73549689@mail06.mail.aol.com>

Hi Folks-

I have an opportunity to purchase an HW-9 (assembled with WARC kit) along with SWR meter and power supply for \$150.

I would appreciate people with experience on the HW-9 sharing their scouting report on the radio. I know that it has a superhet, but I'm wondering how well it works, how sensitive it is, does it have a narrow CW filter, etc.

I already have a collection of multi-band QRP radios that includes the ARG0 509, the Sierra, and the OHR-400. So the Heathkit would be for rounding out my collection and for occasional use. Is the scouting report that the radio is a "worthy" collector piece that's a top performer, or rather a marginal radio? (I would describe the ARG0, Sierra and OHR as definitely "worthy"!)

I'm not on QRP-L, so would appreciate your response to:

Robcap@AOL.com

Thank you & 72,

Rob, WA3ULH

From qrp-l@lehigh.edu Fri Dec 15 21:10:07 1995  
From: "Lau, Zack, KH6CP" <zlau@arrl.org>  
Subject: [1414] Maximizing your FD QSO totals  
Message-ID: <30D19A50@arrl.org>

Mike White (mpw@chensys.com) wrote:

>Might also make people realize that one component of this  
>hobby is about sharing ideas...

I don't know why, but people seem to ignore running SSB when running < 100 mW. Also, it doesn't hurt to run as many bands as possible, even if you need an antenna tuner.

1988 FD KH6CP/1 Newington CT 100 ft ASL  
Band QSOs power (PEP)  
80 CW 4 50 mW

75 SSB 1 30 mW (short skip during the daytime with NN2T!)  
40 CW 31 68 mW  
40 SSB 6 54 mW  
20 CW 3 80 mW  
15 CW 12 75 mW  
15 SSB 3 90mW  
10 CW 1 78 mW  
10 SSB 1 80 mW  
51 on CW, 11 on SSB with a low dipole and 33 ft wire vertical.

The Tandem Match coupler in the 1996 Handbook works quite well for SSB if you use a 20 dB coupler--10 turns on an FT-37-43 instead of the 31 turns on the FT-50-3 cores. I jumpered the unit for continuous operation--I was only on for 7 hours.

--Zack KH6CP/1 zlau@arrl.org

From qrp-1@lehigh.edu Fri Dec 15 21:10:07 1995  
From: Craig LaBarge <74740.3166@compuserve.com>  
Subject: [1438] My Explorer Lives!  
Message-ID: <951216024408\_74740.3166\_EHB80-1@CompuServe.COM>

I finished my Explorer II a few weeks ago and finally got my hands on a frequency counter tonight so I could align it. The alignment was tedious, but it went well. I got a full 3 watts out of the transmitter and I'm really impressed with the receiver; quiet and very sensitive.

No sooner did I get the lid fastened on, when I heard a 4-land station calling CQ. He was in Florida and gave me a 569. He was testing an antenna he had just installed, so we gave each other detailed signal reports and chatted for about 20 minutes. All that while running the Explorer into my rainspout antenna here in Pennsylvania. Not a bad first QSO.

While I was waiting for the frequency counter, I also built an OHR SCAF-1 audio filter. That was a fun little kit to build and it works great, too. The filtering is very sharp.

So, two new toys and it's not even Christmas yet!

73, Craig WB3GCK



From qrp-1@lehigh.edu Fri Dec 15 21:10:07 1995  
From: bmitchel@kodak.com (Brad Mitchell)  
Subject: [1420] NW qrp FD Pictures!  
Message-ID: <9512151751.AA24620@iiatasun.cba.Kodak.COM>

I just got done browsing the pictures on the web  
QRP-1 of the NW club activities. GREAT!!!  
That's great,I hope to get more pictures again this  
year for the N2JGU/WB8YGG FD again.

73 Brad WB8YGG

From qrp-1@lehigh.edu Fri Dec 15 21:10:07 1995  
From: "LSM" <lsm@dscc.dk>  
Subject: [1405] PM2b diagram wanted  
Message-ID: <9511158190.AA819067985@smtpink.dscc.dk>

A friend of mine is repairing an old Ten-Tec PM2c, but  
he needs the diagram of the radio.  
Can anybody help him (through me) with the diagram ?

73 de Lars, OZ1CJX

From qrp-1@lehigh.edu Fri Dec 15 21:10:07 1995  
From: David Speegle <dspeegle@dialin.ind.net>  
Subject: [1434] QRP Tuner!  
Message-ID: <Pine.SUN.3.91.951215193023.22858A@dialin.ind.net>

Has anyone had experience with the qrp tuner that is put out by mfj  
company. It is the one that tunes random and coax. It sells for 89.00  
dollars. Dave NE9F

=====  
| David Speegle                      Email Alias: David.Speegle@dialin.ind.net  
|  
|

| 311 S West St.

|

| Argos, IN 46511

| Phone: 219.546.3848 FAX:

=====  
  
From qrp-1@lehigh.edu Fri Dec 15 21:10:07 1995  
From: jhunter@sunrise.alpinet.net (James K. Hunter)  
Subject: [1396] random wire ant.  
Message-ID: <9512150559.AA23551@alpinet.net>

Thanks to all who wrote --- I am going to try approx. 132 feet and improve my ground !!!!! . Be listening for me.

This qrp is really fun --- I'm brushing up on my C.W. so be patient with me please

Jim Hunter  
WA7ZXN  
Lewistown, MT

From qrp-1@lehigh.edu Fri Dec 15 21:10:07 1995  
From: aa7qy@primenet.com (Roger Hightower)  
Subject: [1392] St. Louis Tuner  
Message-ID: <199512150400.VAA05355@usr3.primenet.com>

For those who don't have the October 95 issue of WorldRadio (pp 48), this is what Richard Fisher KI6SN had to say abt the tuner (paraphrased):

A QRP kit featuring an antenna tuning unit, SWR bridge, and dummy load with switching for an array of band and function combinations. Available in either the Sierra or NorCal 40-A style cabinet.

Two meters show forward and reflected power simultaneously. Bandswitching via a multi-position wafer switch selecting taps on a toroidal inductor. Switchable balun for matching antennae with open wire feeders. Tuner bypass switch.

Jim Cates WA6GER is the contact. The kit will go for \$75.00 plus \$5.00 shipping. Available to members only.

No fee to join, but if you want QRPP (and you should), send subscription fee of \$10 (U.S.), \$15 (Canada) or \$20 (DX) to Jim Cates WA6GER, 3241 Eastwood

Road, Sacramento CA 95821. Make checks out to Jim, since NorCal has no bank account.

Couldn't wait for QRPp to arrive, so I spoke to Jim today and then sent my check off for the kit. No idea when they will ship, but at least I'm on the list.

72, de Roger AA7QY

From qrp-1@lehigh.edu Fri Dec 15 21:10:07 1995  
From: kreinbd@ccgate.dl.nec.com (David Kreinberg)  
Subject: [1403] TEXAS/REGIONAL HELP NEEDED!  
Message-ID: <9511158190.AA819039634@smtpgw.ccgate.dl.nec.com>

Gang:

Well, I've got my OHR EXP II 40M all ready to roll. However, I'm having a #2!!\*# of a time aligning the tx offset. Should be a piece of cake, but I think I'm still off a bit. So .....

.... I'd like to call on my fellow Texans and folks around this region to help me. Sort of a fox hunt, but reversed. I'd like to set up a planned time for me to listen out for you, or for you to listen for me so I can (finally) nail down this tx alignment.

Is anybody willing to help me out this weekend? I know it's close to Christmas and all, but I'd really like to see if my rig is doing anything! If for nothing else to prove to my wife that HER money went for something useful (to me anyway ;-)

What I had in mind was arrange a time to listen for somebody's call, home in on them, and then get their help while I diddle with the tx offset. Would not take much more than 15-20 minutes - tops. And, you would have the eternal gratitude of a very frustrated fellow.

BTW - I'm in the Dallas/Irving area, free lunch for anybody who can help me out locally!!

Thanks folks

72/73 de Dave KK5HA  
QRP-L #25

From qrp-l@lehigh.edu Fri Dec 15 21:10:07 1995  
From: JKXM17A@prodigy.com ( ALLEN SMITH)  
Subject: [1391] Thursday Fox Hunt  
Message-ID: <091.06779477.JKXM17A@prodigy.com>

There was no sign of the Fox person in Western Colorado during the last 20 minutes of the hunt which was all the time I had for it this evening. The closest I came was hearing NA5K calling WJ2V at 0253Z on or about 7041KHz. I didn't hear whether or not he made the catch.

Allen - AA0YU in Grand Junction, CO.

From qrp-l@lehigh.edu Fri Dec 15 21:10:07 1995  
From: roy.gregson@usfamily.wa.com (Roy Gregson)  
Subject: [1397] UTC  
Message-ID: <9512142300144823@usfamily.wa.com>

Hi Gang.....Want to thank everyone for the response on my problems with the times etc.....Actually I was not having a problem with UTC. I was trying to stir up some thoughts about setting a standard on times when the FOX or the new 80 meter net is going to be on. Smitty NA5K has the right idea of stating the times local and UTC. That was all I had in mind Thanks again for all the "help". By the way the 80 meter net at 3710 may be better at least in this location, had some local QRM around 3560 last sunday. Roy W6EMT

From qrp-l@lehigh.edu Fri Dec 15 21:10:07 1995  
From: Clark Savage Turner WA3JPG <turner@safety.ICS.UCI.EDU>  
Subject: [1435] Want Ten Tec 220 filter  
Message-ID: <22278.819074196@safety.ics.uci.edu>

I seem to remember someone on this group advertising a Ten Tec 220 filter, 9 MHz IF, 2.4 KHz bandwidth. I replied, but either it never made it or I never copied myself, or I lost the reply. Is there a model 220 available out there? I want to replace the 4 pole filter in my Argonaut 515 with one.

Another question for Argonaut fans - anyone deal with the glue stuff all over the top of the inductor adjustment on the permeability tuning rack on the preselector? I want to align mine and the glue stuff is all over the RF out screw adjustment (as well as the RF in one that is not to be adjusted). It has the red glue and some yellowish/translucent stuff on it. I need to remove it in as friendly a way as I can before realignment is possible :-)

Clark  
WA3JPG

From qrp-1@lehigh.edu Fri Dec 15 21:10:07 1995  
From: LVE1@inel.gov (Larry East)  
Subject: [1417] Wilderness 40B(?) Schematic  
Message-ID: <9512151608.AA12846@garnet.inel.gov>

If someone could supply me a copy of the schematic for the Wilderness Radio version of the NorCal 40, it would be greatly appreciated. If you are willing, respond direct and I'll forward an SASE.

72 & Tnx, Larry W1HUE/7  
LVE1@inel.gov

From qrp-1@lehigh.edu Fri Dec 15 21:10:07 1995  
From: ljones@why.net (ljones)  
Subject: [1394] Your Tuner Opinion  
Message-ID: <19951215032630695.AAA338@dal46.why.net>

Hey Charles...

Have you got your shields up. It appears that the firey darts and arrows are coming your way. Good Luck (hee,hee)...

72/73

dee-it dee-it (Texas Accent)

Larry n5osg

Larry Jones N5OSG                      NorTex    QRP-ARCI    G-QRP    NorCal    MI-QRP    NE-QRP  
4028 Random Circle  
Garland Tx 75043-3250

From qrp-1@lehigh.edu Fri Dec 15 21:10:07 1995  
From: tbowman@leba.net  
Subject: [1398] Re: A few comments...  
Message-ID: <199512151116.GAA12746@fig.leba.net>

> I find it more than just a little annoying having to scan thru  
> many pages of "junk mail" to find the occasional useful item.  
> -- some of you DO get carried away with all the minute details -- but all the  
items > about what is/isn't "home brew", search for a mascot (for a news list??  
come on...),  
> run-ins with local MVDs and "Fat Burger" shops, quotes from Ogden Nash, etc.  
> I can do without!!

Larry, that is exactly what I like about this list. You want to eliminate all  
the trimmings and maybe keep the just the protein in the turkey....

> Keeping messages short and to the point would also be greatly appreciated!  
> It takes me about 30 minutes just to page thru all the "crap" every morning  
> (unlike some folkies, I'm expected to produce some useful output each day --  
> measured in lines of computer code and/or documentation).

Gee Larry, in the public sector, I'm required to work, too. My bosses actually  
make me turn out news stories on a regular basis. And cover meetings, too.  
Maybe you should subscribe at home like I do, so you can read this list at  
your liesure...

> If you feel the need to show off your literary capabilities, then write up  
> something and send it to a journal!

Please keep all the literary stuff coming to this list, folks.... That's what  
make this a fun place.... Tell me about the burger joints and surplus places in  
Southern California and Texas....

I always think of qrp-1 like 75 meters on a Sturday nite.... Not like 2300 mHz  
on a Monday afternoon....

73, Tom WA3REY

From qrp-1@lehigh.edu Fri Dec 15 21:10:07 1995  
From: LVE1@inel.gov (Larry East)

Subject: [1415] RE: A Few Comments...  
Message-ID: <9512151559.AA12688@garnet.inel.gov>

Well, I received a couple dozen replies that agreed, at least in part, with my comments regarding this list. And two that thought that my head was stuck in some dark smelly place...

This morning I received yesterday's summary -- in THREE parts!! Still lots of messages with complete copies of the message being responded to. (One with the original, a response, then a response to the response!! geezzz...). Also about a zillion messages regarding a "construction" article in the latest QST -- hey, if you want to program your own microprocessor, then do it; otherwise, shut up and buy it pre-programmed!

I did find a few bits of useful info buried in the noise, so guess I won't unsubscribe yet...

A couple of folks suggested that I get a personal account and read the mail at my "leisure" at home -- well with 12 hour work-days, I like to spend my "leisure" hours building something or operating, not reading junk mail! However, I am working on getting an account at home, but first I have to sell the XYL on the idea. Got my first home computer (an Apple II about 12 years ago) by sending her to a Word Processing class -- she said "That's pretty neat; can we get something at home that will do that?" Hey -- I ain't a total dummy!

Nuff (too much, actually...) said -- 72, Larry.

From qrp-1@lehigh.edu Fri Dec 15 21:10:07 1995  
From: ak119@lafn.org (Rothan Maxwell)  
Subject: [1426] Re: A few comments...  
Message-ID: <199512152113.AA04448@lafn.org>

Tom WA3REY of tbowman@leba.net says:

>I always think of qrp-1 like 75 meters on Saturday night...Not like  
>2300 mhz on a Monday afternoon....

That's interesting Tom. Now I don't know what 75 phone is like at your QTH, but what I have heard on 75 here in Los Angeles can only be described as:

A bunch of guys that run too much power, while using too much bandwidth,

to talk about ( what is for the most part ) a bunch of nothing.

I don't think that the qrp-l is analogous to 75 phone at all, but if it is, then Larry has made a very good point in his original post. Perhaps we do need to be more aware of what we post. Perish the thought, that we QRPers would ever be likened to the crew on 75!

72's de max (nu6u)

From qrp-l@lehigh.edu Fri Dec 15 21:10:07 1995  
From: Harry\_Chase@smtpgw.windata.com (Harry Chase)  
Subject: [1427] Re: A few comments...  
Message-ID: <9511158190.AA819072227@smtpgw.windata.com>

>I always think of qrp-l like 75 meters on Saturday nite...Not like  
>2300 mhz on a Monday afternoon....

Given the activity level on the QRP list , just how many people are on 2300 MHz in your area, anyway!??? To be like the qrp-l activity level they would have to be numerous enuff to warm up the local weather with all that RF up there!;-)

Harry  
WA1VVH

From qrp-l@lehigh.edu Fri Dec 15 21:10:07 1995  
From: nu6u-1@w6trw.ampr.org  
Subject: [1432] Re: A few comments...  
Message-ID: <5932@w6trw.ampr.org>

Hello Harry!

my point was that the QRP-L has a lot more to offer than the useless chatter that I have heard from my QTH on 75 meters. Again, If the QRP-L is starting to sound like 75 Phone, then Larry's original point is well taken. A little self control can go a long way to avoid the distruction of a good thing, and I do hold that the list is a very good thing. In regards to 2300Mhz, of course that would be the other extream, no activity. I think the idea is to avoid a mode of operation that reflects either of the stated extreams, ie. 75 phone, the home of high power broadbanded transmitters, controlled by operators who drone on about that which is insignificant. Or 2300Mhz, home of the dead.



73's/72's to all

From qrp-1@lehigh.edu Fri Dec 15 21:10:07 1995  
From: Rick Zabrodski <zabrodsk@med.ucalgary.ca>  
Subject: [1433] Re: A few comments...  
Message-ID: <Pine.SUN.3.91.951215170033.23872A-100000@ume>

On Fri, 15 Dec 1995, Rothan Maxwell wrote:

>  
>  
> Tom WA3REY of tbowman@leba.net says:  
>  
> >I always think of qrp-1 like 75 meters on Sturday nite...Not like  
> >2300 mhz on a Monday afternoon....  
>  
> That's interesting Tom. Now I don't know what 75 phone is like at  
> your QTH, but what I have heard on 75 here in Los Angeles can  
> only be described as:  
>  
> A bunch of guys that run to much power, while using to much band width,  
>  
Interesting, my pre teen son VE6GKJ, has been listening to 75 m as this  
band is available to him once he has his 5 wpm code. He describes it as  
"a bunch of old farts talking about the weather and their antennas"

Well, at least the antenna part might be interesting! :-)

|                                       |   |                                    |
|---------------------------------------|---|------------------------------------|
| Dr. Rick Zabrodski BSc, MD, CCFP(E)   | * | VE6GK                              |
| Clinical Assistant Professor          | * | NorCal 519 ARCI 7650 GQRP 8329     |
| Faculty of Medicine, Univ. of Calgary | * | "Power is no substitute for skill" |

From qrp-1@lehigh.edu Fri Dec 15 21:10:07 1995  
From: N5EM@aol.com  
Subject: [1412] Re: ALC your way to QRP  
Message-ID: <951215101314\_90970691@emout04.mail.aol.com>

In a message dated 95-12-15 07:57:00 EST, N3GO writes:

> I experimented with my IC-735 last night and investigated using the ALC  
>input to control the output power below the minimum adjustable range of 10

>watts per the specifications.

>

>

I use a TS-790A Kenwood satellite radio (2m, 70cm, 23cm) and do exactly the same thing. Needed continuous control down to 30 mw (that's right, MILLIWatts) in order to run a satellite based receiving test on Amsat Oscar 13. At that level, I was down 27 db from the satellite beacon and, yes, there were people who could copy that coming through the satellite. (Not very many, though.) Talk about QRPp.

So, if you have any modern HF rig with an ALC input, this will likely work excellently. Your biggest problem is getting a good QRP wattmeter to actually measure how low you can go.

72

Ed

From qrp-1@lehigh.edu Fri Dec 15 21:10:07 1995  
From: Rick Zabrodski <zabrods@med.ucalgary.ca>  
Subject: [1390] Re: antenna and tuner help  
Message-ID: <Pine.SUN.3.91.951214202802.10924B-100000@ume>

the ladder line should be as long as you need it  
If you have problems loading up a particular band of interest then add or subtract 10 or 20 feet.  
You should be aware that if you set this 102 foot wire as an inverted vee for 20 thru 10 metersthe pattern will be omni directional and less than what you would expect for a flat top horizontal dipole in terms of gain. (My computer models and also discussed in the ARRL ant compendium vol 4)

|                                       |   |                                    |                     |
|---------------------------------------|---|------------------------------------|---------------------|
| Dr. Rick Zabrodski BSc, MD, CCFP(E)   | * |                                    | VE6GK               |
| Clinical Assistant Professor          | * | NorCal 519                         | ARCI 7650 GQRP 8329 |
| Faculty of Medicine, Univ. of Calgary | * | "Power is no substitute for skill" |                     |

From qrp-1@lehigh.edu Fri Dec 15 21:10:07 1995  
From: Pat Taber <ptaber@logiccraft.com>  
Subject: [1400] Re: Antenna Tuner  
Message-ID: <199512151258.HAA60370@nss2.CC.Lehigh.EDU>

>>Now, back to a better subject. I think I can program a

>>microcontroller to do what the gentleman in the article did. Better  
>>yet, I think I can make it so the firmware is FIELD upgradeable with  
>>nothing more than a PC and a cable. I anyone interested?  
>  
>If you're going to make source available, also send it into QST for one  
>of the 'tech notes.' You always see a little reverse engineering going on  
>for a radio or some such - it would be nice to see a little software reverse  
>engineering going on.  
>

I doubt that QST would want it. Too limited and audience. You might try QEX  
-- that's more in their line.

It's funny that last week people were puffing themselves up about being Real  
Homebrewers and this week people are whining that they can't get someone  
else's source code.

>>>==>PStJTT

```
=====
Patrick Taber                      Email: ptaber@logiccraft.com
Principal Software Engineer        Phone: (603) 880-0300
Logiccraft Information Services    Fax: (603) 880-7229
22 Cotton Road                   QRP-L: 215
Nashua N.H. 03063                Also known as: KC1TD
```

From qrp-l@lehigh.edu Fri Dec 15 21:10:07 1995  
From: Pat Taber <ptaber@logiccraft.com>  
Subject: [1401] RE: Antenna Tuner  
Message-ID: <199512151300.IAA86865@nss2.CC.Lehigh.EDU>

>I defy anyone to tell me of something that they made out of nothing.

Snipe stew....

>>>==>PStJTT

```
=====
Patrick Taber                      Email: ptaber@logiccraft.com
Principal Software Engineer        Phone: (603) 880-0300
Logiccraft Information Services    Fax: (603) 880-7229
22 Cotton Road                   QRP-L: 215
Nashua N.H. 03063                Also known as: KC1TD
```

From qrp-l@lehigh.edu Fri Dec 15 21:10:07 1995  
From: jcumming@clark.dgim.doc.ca (Jim Cummings)  
Subject: [1404] Re: Antenna Tuner  
Message-ID: <9512151355.AA09104@clark.dgim.doc.ca>

>>On Wed, 13 Dec 1995, Charles Cashion wrote:

>>

>>> QRP'ers,

>>> The latest issue of QST came today. The item that pique'd my attention  
>>> was an "automagic antenna tuner". I do not have an antenna tuner, so any  
>>> antenna tuner would catch my attention. And it is a construction article!  
>>> OH BOY! I love construction articles. Then I examine it more closely.

>>>

>>> The bad news...The whole article is a commercial advertisement.  
>>> The only way it can be built, is to order the micro-processor from the  
>>> kind folk what designed it...umm...err...uhh?...Haven't we been here  
>>> before? ...I think so.

>>>

>>> Three things I do not like. First I do not like being the brunt of a joke.  
>>> Second, I do not like "bait-and-switch" tactics. Third...I do not like  
>>> mis-understandings. Even when my own thought process plays a part in it.  
>>> >

>>> 73, Charles Cashion, ex-W5ISZ

>>> --

>>> + - - - - - +  
>>> | Charles Cashion w.214-519-2583 h.214-881-0952 |  
>>> | ARRL NorTex#116 NorCal#1320 ex-W5ISZ QRP-L#76 |  
>>> + - - - - - +

>>>

>>

>>Just because you feel you don't want to attack this as a  
>>construction project, please don't bite off our heads. The article shows  
>>you a design for a tuner, it offers you a \$20.00us microprocessor chip as  
>>the heart of the project it you want it, it offers you a \$35.00us pc  
>>board if you want it, and it offers you a complete kit, if you don't want  
>>to go through the hassle of finding the parts yourself. Other than our  
>>fear of doing all this for nothing by giving the source code to some big  
>>time manufacturer, I don't see how this differs from other kits.

>>

>>

>>Thanks for your time and I am deeply sorry if we offended you.

>>

>>Sincerely,

>>Gene Tehansky AA3AV, still from beautiful Southern Maryland.

>>

>>If desired, LDG Electronics can be reached at ldg@atc.ameritel.net and a

>>web page is available at <http://www.ameritel.net/lusers/ldg>

>>

>

Up here in Canada, we won't get QST until the last day or two of December or the first week in January. So I looked up the web page as Gene had posted. Impressed with what I saw, I gave the company a call on the phone. I spoke to Jennifer on the phone at LDG Electronics and she was kind enough to take the time and faxed me a copy of the article.

After I reviewed the article, the only part I really need is the microcontroller because I haven't the faintest clue on how to program these suckers. All the rest I can do myself. However, should I decide to buy the kit, I would probably get the complete kit mainly because parts gathering, in my experience, can be a real chore and oftentimes quite costly.

Instead of raspberries, these guys at LDG should be given a pat on the back for finding a need and filling it. If you can programme these chips using your own software, more power to you. But neither I and most of the amateur fraternity are able to do so. Furthermore, only very few would even know what to do with the source code, even if we could access it (I believe that Gene has sent a message to the QRP-L subscribers on how to get a copy.)

>Good Lord... this article introduced a software solution to a problem as other articles. Two that come to mind immediately was the CMOS Keyer II and the W9GR DSP filter - yet you don't hear any bellyaching about those. I am glad that ARRL publishes any SOTA articles that solve problems - they don't do enough, in my opinion.

Therefore, speaking only for myself, Gene and LDG Electronics have no need to feel ashamed for what they have done and I hope that they will continue to design products that can be added to the capabilities of any amateur station.

If I may make a couple of suggestions.... It would be nice to see another version of this tuner that was similar in scope to the SGC-230 and Icom AH-2/AH-3 series of autotuners. However, after looking at the schematic diagram, it would appear that the number of inductors and capacitors are limited by the number of relay switching lines available from the micro-controller. I suspect that another controller would be required and, of course, another assembler program would be written. If such a circuit was available, then with the recent release of small HF/VHF rigs, such as the TS-50 or IC-706, a more affordable auto-tuning option would be available, using a stainless steel mobile whip.

Another simpler circuit that would be required would be a micro-controller circuit to control any of these "screw-driver" antennae that are on the market. These mobile antennae are based on Don Johnson's design called the DK3. An example of a commercial version of this antenna is the High Sierra HS3. The common way to tune these antennae is to have a reversible switch

in the driving position, listening for the highest level of noise, and  
tugttune for minimum SWR. This is not something that should be done while  
driving. However, a micro-controller would do this automatically by  
energizing the motor, sliding the coil up or down appropriately and stopping  
at the minimum SWR.

=====  
                  Jim Cummings  
      eMail:jcumming@clark.dgim.doc.ca  
      packet:VE3XJ@VE3JF.#EONT.ON.CA.NOAM  
      73 and live better digitally  
      DON'T GET TOO EXCITED...  
      because remember, today is the first  
      day of the rest of your life.  
=====

From qrp-1@lehigh.edu  Fri Dec 15 21:10:07 1995  
From: JessQRP@aol.com  
Subject: [1437] Re: Antenna Tuner, HB vs HB, ad nauseum  
Message-ID: <951215212604\_73941162@mail04.mail.aol.com>

Semi kidding flame mode on

Man! What a bunch of cry baby's! ;-0 (This means laughing and winking ok?)

Come on guys! I don't see anyone complaining about Wayne not giving away the  
source for the KC-1, what's the differnece other than it costs a few bux  
more? Sure beats the hell out of what the commercial tuners cost for the rice  
boxes and better quality and auto tune for about the same price as the Mighty  
Fine Junk tuners.

Let's get back to reality and QRP. If these guys want to make a few bux after  
working hard on a new kit so what? How is this any different than a review of  
a QRP kit for a radio in a mag? Sure there are a few that would build it from  
scratch and even more that would but the kit because they like the  
convenience of a kit. Like a NN1G, a Norcal, a OHR a CMOS keyer III (don't  
hear anyone here carping about not getting the IC mask for the Curtis chip,  
do you?) etc.....

Enuff about HB versus HB, tuners and all of the other never ending threads!

There now I have said it, will get chewed out at length, and so on and so  
on...

30 HB vs HB messages and 20 tuner messages and only 5 that are on a different topic is getting out of hand. Is everybody I-net surfing and not operating?

OBqrp non flame mode

OHR 400 is nearing completion and the only problem that I have is that the wiring bundle that came with the kit was bit short and now I have to try to get another one from Dick. After cutting the wires for the oscillator board the prescribed length, there was not enough wire left for all that I needed. I hope that Dick will be hospitable enough to send a new one. The only part that I was missing so far has been a 1.5 uh coil for the oscillator board. The T/R board is finished and the chassis board getting there. The approach to this kit has been very laid back and I have been taking my time. The instructions are excellent and parts packaging as excellent. I am looking forward to getting on the air.

Please consider all above comments tounge in cheek and ge gentle with the flame throwers. All replies to private repsonse please!!!!

From qrp-l@lehigh.edu Fri Dec 15 21:10:07 1995  
From: prvalko <prvalko@Oakland.edu>  
Subject: [1423] Re: CW "Accents"....  
Message-ID: <Pine.OSF.3.91.951215144654.20651A-100000@saturn.acs.oakland.edu>

On Fri, 15 Dec 1995 dsa@apollo.hp.com wrote:

> The other day, I heard a W6 sending with a really interesting  
> accent. Sounded something like:  
>       whoooooop whoop whoooooop whoop . . .  
>       whoooooop whoooooop whoop whoooooop . . .  
> Must've been a some kind of "Valley" accent ;-)

Got that beat, Last week I heard a 9-land station calling :

dah di dah dit  
di dah di dah

Swear to God. He must have forgot what a "Q" was, did this several times, with a call, and never got a response. Loud too!

73 =paul= wb8zjl

ObQRP - Foxless in Michigan once again. Good thing Smitty is up next week!  
Walt (WB8E), managed to work a 2x QRP with him as Smitty was

driving into work a few days back.

From qrp-1@lehigh.edu Fri Dec 15 21:10:07 1995  
From: Allen Jones <ajones@adsnet.com>  
Subject: [1429] Re: CW "Accents"....  
Message-ID: <199512152220.QAA29126@alice.adsnet.com>

>  
>Got that beat, Last week I heard a 9-land station calling :  
>  
> dah di dah dit  
> di dah di dah  
>  
>Swear to God. He must have forgot what a "Q" was, did this several  
>times, with a call, and never got a response. Loud too!  
>  
>73 =paul= wb8zjl  
>  
I have heard the same thing. Didn't make note of the call but do know that  
it was a newer style Extra (2X1 I think).

After he sent: dah di dah dit  
                    di dah di dah

Somone came on freq and sent: di dah di dah  
                                            di di dah dah di di

This really generated a chuckle amongst the local radio club coffee clutch.

72/3 de Allen, K9DZE  
=====

Allen Jones K9DZE ajones@adsnet.com  
Michigan City, Indiana EN61nq  
ARCI G-QRP NorCal QRP-L #112  
=====

From qrp-1@lehigh.edu Fri Dec 15 21:10:07 1995  
From: "Timothy J. Pettibone" <tpettibo@NMSU.Edu>  
Subject: [1413] Re: FOX SCHEDULE CHANGE FOR 12/19/95  
Message-ID: <Pine.A32.3.91.951215084049.81849A-100000@hector>



Hey Smitty:

Never (NEVER!!!) heard the fox but did hear you calling him. Did you ever bag him? Other than you I only heard one "smart" fellow calling:

CQ CQ FOX DE \_\_\_\_\_

My response was "R U THE FOX? DE AB50U" no response was had.

Tim AB50U

From qrp-1@lehigh.edu Fri Dec 15 21:10:07 1995  
From: GREGOIRE@VALLEY.NET (ERNEST GREGOIRE)  
Subject: [1428] Re: Getting the SWR down?  
Message-ID: <199512152156.QAA31348@dartvax.dartmouth.edu>

>Last weekend, I put up a new antenna, a 40m dipole fed with 450 Ohm  
>ladder line so that I could tune it to other bands too.  
>I can only get a 1:1 vswr on 80m. On 40m, the best I can get is  
>about 2:1, and on all the higher bands, I'm lucky if I can get it  
>down to 3 or 4:1!!! The books suggest that you ought to be able to  
>get perfect 1:1 vswr on all bands.  
>  
>Can anyone suggest a remedy?

Hi Dave,

My first antenna was a 80 meter dipole up about the same height as yours. It tuned all the bands except 160 m. with a tuner. It was coax fed and had a balun . Try to get some more wire in the air, even if you have to bend it around a corner. A 1/2 wave dipole at 80 m is about 126 feet long. You can bend the ends down too, if space is limited.

de AA1IK                    N.E.-QRP-C. # 202    ( Lead by example, It is better to    )  
                             QRP-L member #95.    ( pull a string than it is to push it.)  
Ernie Gregoire  
RR 1 Box 221  
Canaan, NH. 03741

New England QRP Club, information  
available on request by sending me a  
S.A.S.E. or via E-mail.

e-mail : GREGOIRE@VALLEY.NET  
packet : AA1IK@WA1WOK.FN43FE.NH.USA

From qrp-1@lehigh.edu Fri Dec 15 21:10:07 1995  
From: "rohre" <rohre@arlut.utexas.edu>  
Subject: [1430] RE: Getting the SWR down?  
Message-ID: <n1393076004.74369@msmailgw1.arlut.utexas.edu>

Dave and the group,  
A few more pieces of information on your antenna and tuner would help us think about what might be going on.

The fact that a dipole cut for 40M, and fed with only open wire or ladder line gives you the lowest SWR on \*80M\* and then has higher SWR on its supposedly resonant band, and even worse on higher bands, even with the tuner, causes me to wonder about what tuner you use, what SWR measurement means, and on the tuner, are you using a balun, or balanced antenna pair of output terminals?

Now, hopefully, even though the dipole is low for its resonant band, 40M; with the ladder line feed, it should be possible to tune it to low SWR, if everything is hooked up with good connections, The worst I can think of happening, if you cut it by the 468 over Frequency formula, is it could be resonant in a different part of the band, than you expected. The tuner should take care of that. Now another problem may be at work here. Is the feedline well clear of conductors or metal? Did you twist it every so often to further make it immune to coupling to other conductive objects? Is the tuner sitting on top of the rig or vice versa? I have had undesired coupling between a tuner on top of a rig, that went away when I set them apart side by side. Remember most tuners today do not have adequate magnetic field shielding, and if solenoid coil tuned, may have stray fields coupling to the outside of the case, even with aluminum cases. Simply moving the tuner, such that it only is coupled to the transceiver with coax properly grounded at both ends may cure a problem. If the tuner is not commercial and is homebrew, are the in and out properly marked. Your ladder line should be going to terminals to connect to a balun before the tuned circuit, and most commercial tuners use some type of binding post or bolt terminal for those. Some need a jumper ground from one of those terminals to the coax ground of the case removed for balanced feed, and use the jumper on one side of the balun to ground when they feed a single wire antenna. Check for a balun hook up that only connects to your antenna 450 ohm line. Perhaps, with the dipole ends so low, and the center only at I believe you said about a quarter wave high, that would account for the problem at 40, but not on higher bands, where the

dipole is at a better height in terms of the wavelength.

Some tuner types will not properly tune a balanced line. Even some tuners with a balun may not be well balanced, or the balun may have a poor step up ratio for this ladder line application. Try to borrow someone else's tuner and try its balun output connection. Check your coax jumpers between transceiver and SWR meter and Tuner. Recent works say a better balance is obtained with a one to one 50 ohm balun in the coax input to the typical Tee tuner most hams use. You thus float the whole tuner which might work better for some cases. In such a case, you must not have a ground wire to the tuner case, or that would defeat the input balun working as intended. The coax still goes between the 50 ohm balanced out of the balun and the tuner input, but you do not need any wire to ground on the tuner case, just the one to the rig, if you use one at all. (That ground is more for electrical safety than RF use.)

And a final thought, check tightness of all ground connections and internal connections of the tuner, and the switch contacts for clean connection, etc. At QRP power, corroded pitted contacts on a tuner switch formerly used for QRO might not be efficient at the lower powers.

Let us know what you find out. Might try substitution for the SWR meter as part of your search. Change only one thing at a time as you test.

good luck,  
72, Stuart K5KVH  
rohre@arlut.utexas.edu

From qrp-1@lehigh.edu Fri Dec 15 21:10:07 1995  
From: Wynn C C <wyn@stc06.ctd.ornl.gov>  
Subject: [1431] Re: HB vs Kit es TOP TEN WAYS.. es Larry do not read  
Message-ID: <Pine.OSF.3.91.951215181915.29310A-1000000@stc06.ctd.ornl.gov>

On Fri, 15 Dec 1995 08:00:05 EST Pat Taber <ptaber@logicraft.com> wrote:

>It's funny that last week people were puffing themselves up about being Real  
>Homebrewers and this week people are whining that they can't get someone  
>else's source code.

Hi gang,  
After the latest discussion new suggestions have come in:

Revision Record:

12-15-95 Deleted: 10. Has a framed picture of Nikola Tesla hanging over the workbench.

Added: 10. Regards other works as infantile or afflicted with commercial gimmickry and pecuniary interests.

#### TOP TEN WAYS TO RECOGNIZE TRUE HOMEBREWERS

1. Only uses parts no longer in production.
2. Still uses a Z80 computer and writes all of their software.
3. Only designs and builds circuits using PNP transistors.
4. Only designs and builds rigs with positive (+) ground.
5. Seldom labels visible switches, knobs, or dials.
6. Spends every other Saturday browsing at the county landfill.
7. Refuses to plagiarize Schottky, Yagi, Uda, or the ARRL Handbook.
8. Never refers to a copy of a schematic, or logic diagram.
9. Builds their own tower, using a homemade electric welder.
10. Regards most HB as infantile or afflicted with commercial gimmickry and pecuniary interests.

;):-):-):-):-):-):-):-):-):-)

72/73,  
Happy Holidays,  
Clay N4AOX

From qrp-1@lehigh.edu Fri Dec 15 21:10:07 1995  
From: Wayne Burdick <burdick@interval.com>  
Subject: Re: Lab Results on Norcal 40!!!

Alan, thanks for the note! I'll save this one for braggin' rights.

Did I mention the mod to the 4.915MHz oscillators? Change the 150pF caps in both NE602 4.915MHz crystal oscillator circuits (TX mixer and RX product detector) to 270 pF, and change the associated 47pF cap to a 50pF trimmer. The change to 270pF reduces the harmonic content even more, while the 50pF trimmer allows you to independently set the receive IF pitch and the TX monitor pitch.

If you try this and re-test, let me know!

73,  
Wayne

((forwarded message follows----my note to Wayne, Oct '94))

I took the rig into one of the shops at work and hooked it up to a few of the toys. The results:

- 1) power output (2sc799 final) as measured on a Motorola R-2000 Communications System Analyzer

2.11 Watts output with 13V power input

- 2) harmonics and spurs as measured on a HP 8565-A Spectrum Analyzer

second harmonic DOWN 42 dB (((without any tweaking!  
just 'as-built' from Wayne's specs)))  
(3rd harmonic, etc., even smaller)

It's a great rig -- here are two of the reasons why.

[<Alan Kaul, W6RCL>] kaul@netcom.com

From qrp-1@lehigh.edu Fri Dec 15 21:10:07 1995  
From: Alan Kaul <kaul@netcom.com>  
Subject: [1421] Re: Lab Results on Norcal 40!!! (fwd)  
Message-ID: <Pine.3.89.9512150953.A7061-0100000@netcom23>

After sending this to Stan, I found a few more messages on this thread. Below is my note to Stan, followed by Wayne's (the designer) note to me back in October of 94, and my original note to Wayne. The message might be -- each radio is unique. That even though they are made to specs, wire types, quality control in the manufacture of cores, caps, etc., plus density of winding, et. al., might make a difference. If your project has 2-3 interacting components which are EACH 5-10 percent off, then together they might make a difference of a few db in the second harmonic. What kind of precision do you get if you measure the coil in the output filter but don't measure the capacitors? The output filter is comprised of caps and coils -- together they make up the COMPLETE circuit. When you

trouble-shoot it, remember to double check EVERYTHING.

73/72 and, happy holidays, de alan

[<Alan Kaul, W6RCL>] kaul@netcom.com

----- Forwarded message -----

From qrp-1@lehigh.edu Fri Dec 15 21:10:07 1995

From: Alan Kaul <kaul@netcom.com>

Subject: Re: Lab Results on Norcal 40!!! (fwd)

Stan.... here's what I found on mine. I do not have my original message to Wayne-----but I have his reply, plus a repeat of my note to him. Also, please note I have the 40 -- and not the 40A.

Good luck ... I'd like to see what you find out.  
73/72 de alan

[<Alan Kaul, W6RCL>] kaul@netcom.com

----- Forwarded message -----

From qrp-1@lehigh.edu Fri Dec 15 21:10:07 1995

From: LVE1@inel.gov (Larry East)

Subject: [1416] RE: NorCal 40 Output Filter

Message-ID: <9512151559.AA12691@garnet.inel.gov>

Regarding the comments yesterday by Stan Goldstein, N6ULU:

I found essentially the same thing regarding measured vs. calculated toroid inductance (as I mentioned in a previous post). I had to remove one turn from one of the output filter coils to get the required L, but the other was pretty close with the recommended number of turns. Also had to remove a couple of turns from the VFO coil. I assume that this is accounted for by variation in the properties of the core material from batch to batch. Don't recall ever seeing specs on this, but would guess that variations in mu are on the order of 5 to 10% -- maybe more, depending on the material.

72, Larry.

From qrp-1@lehigh.edu Fri Dec 15 21:10:07 1995

From: "David D. Meacham" <ddm@datatamers.com>

Subject: [1395] Re: Norcal40 output filter

Message-ID: <Pine.LNX.3.91.951214205320.10586D-1000000@dt1.datatamers.com>

Stan,

I have run into the same thing several times lately! Now I measure EVERY toroidal inductor and adjust the turns accordingly. So far I have found T37-2 cores to have the worst variation.

72, Dave, W6EMD

-----

On Thu, 14 Dec 1995, Stan Goldstein, N6ULU wrote:

>

> Gang, we measured my harmonic output on my '40  
> and found it to be just a tad "illegal" . I think  
> 2f was 28 db down on the first harmonic and 30 is  
> required for a rig with 5 watts or less.

>

> Here is some interesting stuff on the output  
> filter of the norcal 40.

>

> After the fox hunt Monday night ( nhtf or  
> anybody calling ), I pulled L7 out and measured it  
> with my trusty Autek RF Analyst and found it to be  
> higher than expected.

>

> Consulting the charts , 18 turns on a t37-2 was  
> supposed to be 1.3 uh, I measured close to 2.  
> I removed a turn and remeasured and got close to  
> 1.7, still too high, but popped it back into the  
> rig to see the results.

>

> I don't have a spectrum analyzer here , so i  
> measured the harmonics by looking at the s-meter  
> on my commercial rig.

> I also measured the output power with a scope  
> and a dummyload.

>

S-Meter Readings

>                   base reading    new readings  
>                   ( before changes )( after change )

>

|           |      |      |
|-----------|------|------|
| > freq    | s9   | s10+ |
| > 2x freq | s7   | s6.7 |
| > 3x freq | s3.5 | s3   |

>

>

Output power

|                                  |                          |
|----------------------------------|--------------------------|
| >                   42 volts p-p | 45 volts p-p             |
| > (calculated 4.34 watts )       | (calculated 4.96 watts ) |

>

> ( Dummy load measured 51 ohms )  
>  
> Is this "normal" for a toroid to be 50 % out of  
> tolerance ?  
>  
>  
> May play with L8 tomorrow and see what happens  
> there.  
>  
> Hope to get to a spectrum analyzer to verify my  
> results.  
>  
> 72/3 , Stan N6ULU.  
>  
> STAN@CRUZIO.COM  
>  
>  
>  
>  
>  
>  
> --  
>  
> Stan Goldstein  
>  
>  
>

From qrp-1@lehigh.edu Fri Dec 15 21:10:07 1995  
From: prvalko <prvalko@Oakland.edu>  
Subject: [1410] Re: Norcal40 output filter  
Message-ID: <Pine.OSF.3.91.951215094951.2093A-100000@saturn.acs.oakland.edu>

On Thu, 14 Dec 1995, Stan Goldstein, N6ULU wrote:  
> Gang, we measured my harmonic output on my '40  
> and found it to be just a tad "illegal" . I think  
> 2f was 28 db down on the first harmonic and 30 is  
> required for a rig with 5 watts or less.

Oh My, somebody else noticed this!

One evening I was bored and used all my toys to listen to my NC40A+ for harmonics.

I found that it richly radiated all the way up to and through my UHF all



mode radio.

I am looking forward to this thread.

73! =paul= wb8zjl

From qrp-1@lehigh.edu Fri Dec 15 21:10:07 1995  
From: Paul Harden <pharden@aoc.nrao.edu>  
Subject: [1418] Re: Norcal40 output filter  
Message-ID: <199512151639.JAA15955@zia.aoc.nrao.edu>

Gang,

I do not own a NorCal 40, but have helped a couple of locals get theirs working. I also took a signal generator and spectrum analyzer to our recent hamfest and operated a "QRP table." Numerous hams brought their QRP rigs to get their free alignment. Mostly NC40's and NN1G rigs. I am glad to say, I did not find one single QRP kit that did not meet the 30dB requirement on the 2nd harmonic. There were a couple riding the fence, but all of them were in FCC compliance.

Several were NC40/40a's. One ham brought his in from Arizona he had just built with the KC1 installed. I remember his 2nd harmonic was -36 dB down. The best was a NN1G SW30 an Albuquerque ham had just built. He built his into a literal "ham can." 2nd harmonic on that contraption was -42 dB! (Anybody know this guy? His name was Paul, mid 30's, from Albuquerque? Seems like KB5---.)

I guess my point is, not to get too worried about your particular rig or kit (would that be homebrew vs. kit ?) having excessive harmonic power. My experience shows most are well within FCC compliance. The truth is, there is no way to measure your spurious radiation power unless you have the proper test equipment like a spectrum analyzer or frequency sensitive power meter. Using your S-meter is a good check for ball-park comparison, but nothing you can make absolute measurements off of. It might be more useful to have a local ham, living a mile or so away, take comparative S-meter readings on your fundamental and up on the 2nd harmonic. This would at least be based on radiated power and not what's floating around inside the shack.

Also note that the original poster has some access to test equipment to check his results. I wouldn't start adding/subtracting toroidal windings unless like him, you have a way of seeing exactly what you just did!

So relax and enjoy your QRP rig, whether 80M, 40M, 20M or 10M ...

or whether one at a time or all at once! (Hey, I'm kidding).

72, Paul NA5N  
DITdit DITdit (excessive 2nd harmonic)  
QRP-L #38  
QRP-L #76 (2nd harmonic)

From qrp-l@lehigh.edu Fri Dec 15 21:10:07 1995  
From: JCoote@aol.com  
Subject: [1406] Re: random wire ant.  
Message-ID: <951215091608\_54949859@mail02.mail.aol.com>

In a message dated 95-12-14 13:28:11 EST, jhunter@sunrise.alpinet.net (Jim Hunter) writes:

>Is there an optimum length for a random wire???

>

>Minimum length for all hf bands??

>Maximum length for qrp??

The optimum length for a random wire should be 1/4 to 1/2 wavelength on the lowest band you will use. Below 1/4 wave you'll have a little less efficiency although the wire will work with a good tuner (those mobile tuners load up very short whips with some success).

Specific lengths don't matter unless you have a really crummy tuner that doesn't have enough L/C in it to tune much beyond 25-100 ohms (like a few internal tuners on some riceboxes I could mention). Get the length which works with your tuner on all bands, and without having to prune the wire for each QSY. One ripoff tuner was said to be useful for longwires and random wires... close examination of the innards and fine print revealed "longwires" of only 1/4 wavelength (not a longwire) and pruning necessary.

Maximum length for QRP... True longwires are several wavelengths long and longer at the lowest band. The longer the wire the more directivity on the axis of the wire. You may not notice directivity because most home installations are too close to the building, the antenna is folded or too close to ground.

Minimum length... depends on your tuner but could be 1/8 or 1/16 wavelength. If your wire will be 1/4 wave and under you will need a better counterpoise, several 1/8 to 1/4 radials instead of the usual single counterpoise wire.

73, Jay  
WB6AAM

From qrp-1@lehigh.edu Fri Dec 15 21:10:07 1995  
From: GREGOIRE@VALLEY.NET (ERNEST GREGOIRE)  
Subject: [1407] Re: TEXAS/REGIONAL HELP NEEDED!  
Message-ID: <199512151423.JAA15713@dartvax.dartmouth.edu>

>  
> Gang:  
>  
> Well, I've got my OHR EXP II 40M all ready to roll.  
> However, I'm having a #2!!\*# of a time aligning the  
> tx offset.  
> Is anybody willing to help me out this weekend?  
>  
>  
>  
> BTW - I'm in the Dallas/Irving area, free lunch for  
> anybody who can help me out locally!!  
>  
> Thanks folks  
>  
> 72/73 de Dave KK5HA  
> QRP-L #25  
>  
Hey Dave, I'll help you for a free lunch, Lets go to Papasitas for BBQ.  
Of course it will take me a while to drive down there from New Hampshire.  
:) :) :)

de AA1IK                    N.E.-QRP-C. # 202    ( Lead by example, It is better to    )  
                             QRP-L member #95.    ( pull a string than it is to push it.)

Ernie Gregoire  
RR 1 Box 221  
Canaan, NH. 03741

New England QRP Club, information  
available on request by sending me a  
S.A.S.E. or via E-mail.

e-mail : GREGOIRE@VALLEY.NET  
packet : AA1IK@WA1WOK.FN43FE.NH.USA

From qrp-1@lehigh.edu Fri Dec 15 21:10:07 1995  
From: LVE1@inel.gov (Larry East)  
Subject: [1425] RE: Wildnerness 40B(?) Schematic  
Message-ID: <9512152007.AA17332@garnet.inel.gov>

>If someone could supply me a copy of the schematic for the Wilderness Radio  
>version of the NorCal 40, it would be greatly appreciated.

Only received one response, but that was enough... maybe everyone else is  
POed because of my critical comments about the list content!

72, Larry.